



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,571	09/15/2004	Fumie Kawai	120268	5245

25944 7590 06/23/2006

OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

KOVAL, MELISSA J

ART UNIT	PAPER NUMBER
----------	--------------

2851

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

5/

Office Action Summary

Application No.

10/500,571

Applicant(s)

KAWAI ET AL.

Examiner

Melissa J. Koval

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 4 is/are rejected.
- 7) ☒ Claim(s) 2 and 5-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/1/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the prism of claim 4 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

Claims 1, 3 and 6 are objected to because of the following informalities:

“projected image screen” in line 17 of claim 1 seems more likely to be referring to the image formed on the modulator. The use of the term “screen” is confusing. The same limitation appears in Claim 3. In claim 6, “quart” should be changed to - -quartz - -. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 3 and 4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Japanese Publication JP 2002-155372 A.

See the Figures.

Claims 1 and 4 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Japanese Publication JP 2002-006298 A.

See the Figures.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugawara U.S. Patent 6,942,347 B2 in view of Mitsutake et al. U.S. Patent 6,229,646 B1.

See Figures 1, 8 and 9 of Sugawara '347 B2.

Claim 1 sets forth: "A projector comprising: an illumination optical system emitting illumination light (light source 1 and parabolic mirror 2); a color-light-separating optical system separating the illumination light into three kinds of red, green, and blue light (See blue reflecting dichroic mirror 8, green reflecting dichroic mirror 10, column 5, lines 64 through 67, and column 6, lines 1 through 23.); electrooptical devices receiving the three kinds of color light separated by the color-light-separating optical system (liquid crystal panels 12, 15 and 18), converting them into corresponding kinds of light for forming images of the corresponding kinds of color light in accordance with image signals of the corresponding kinds of color light, and emitting them; a color-light-synthesizing optical system synthesizing the three kinds of color light emitted from the

Art Unit: 2851

electrooptical devices (color combining prism CSP1 with prisms 24, 25, 26 and 27); a projection optical system projecting the light synthesized by the color-light-synthesizing optical system projection lens 28); and polarizing plates disposed on the light paths of the corresponding kinds of color light between the corresponding electrooptical devices and the color-light-synthesizing optical system, and

the projector further comprising an optical element which adjusts the size of a projected image screen of at least one of the three kinds of color light extending along at least a predetermined direction so as to be nearly equal to those of the other kinds of color light extending along the predetermined direction and which is formed on and integrally with one surface of the corresponding polarizing plate so as to serve as an optical element for compensating chromatic aberration of magnification (See positive lenses 13, 16 and 19. See column 9, lines 33 through 46)."

Sugawara '347 B2 teaches all of the elements of claim 1 except for the presence of polarizing plates as claimed.

Polarizing plates in an analogous color projection system are shown in Figure 12 of Mitsutake et al. '646 B1. The polarizing plates 77R, 77G and 77B are optically connected to light modulators 76R, 76G and 76B and condenser lenses 75R, 75G and 75B. Improved color performance is also an objective of the system of '646 B1.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include polarizing plates as shown by Mitsutake et al. '646 B1 in the projection system taught by Sugawara '347 B2 to meet the limitations of claim 1.

Art Unit: 2851

The motivation for one having ordinary skill in the art to make such a modification would be to improve color performance of the system.

Claim 3 is rejected for the same reasons already applied to rejected claim 1. Furthermore, Figures 16 through 24 of '347 B2 show aberration charts and see column 13, lines 36 through 54 of '646 B1.

With respect to claim 4, again refer to lenses 13, 16 and 19 of Sugawara '347 B2.

Allowable Subject Matter

Claims 2 and 5 through 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record neither shows nor suggest all of the elements of claim 2 in combination and particularly a polarizing plate disposed in the path of red having a different material composition than those polarizing devices disposed in the paths of both blue and green.

Each and every limitation of claims 5 and 11 are required to render the claim allowable over the prior art of record.

Claims 7 through 10 depend from claim 5 or an intervening claim.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Takezawa et al. U.S. Patent 6,811,262 B2 teaches a projector comprising an optical component having a rock crystal member.

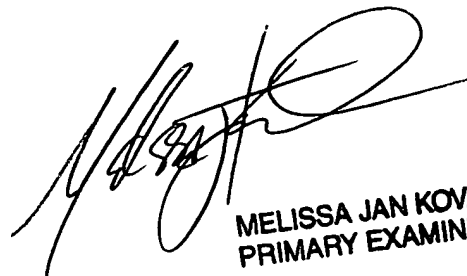
Ito et al. U.S. Patent 6,592,224 B2 teaches an optical reflection polarizer and projector comprising the same.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa J. Koval whose telephone number is (571) 272-2121. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Melissa Jan Koval
Primary Examiner
Art Unit 2851



MELISSA JAN KOVAL
PRIMARY EXAMINER